

Department of Transportation (DOT) Performance Review

Director: Art Holmes
9 December 2011

CountyStat Principles

- **Require Data-Driven Performance**
- **Promote Strategic Governance**
- **Increase Government Transparency**
- **Foster a Culture of Accountability**



Agenda

- **Welcome and Introductions**
- **Historical Budget Review**
- **Annual Headline Measure Performance Update**
- **DOT MC311 Service Level Agreements**
- **Wrap-Up and Follow-Up Items**



Tracking Our Progress

■ Meeting Goals:

- Determine the impact of DOT programs and activities on headline measures and establish new performance expectations and goals
- Review ongoing departmental data collection efforts and discuss future projects that will further incorporate data into the decision making process

■ How will we measure success

- Updated performance plan is finalized and published to the web
- Ongoing monitoring of performance through Montgomery County Performance Dashboard



Historical Budget Overview

	FY09	FY10	FY11	FY12
DOT General Fund	\$54,024,890	\$51,821,210	\$40,819,620	\$41,367,460
Parking District	\$24,852,120	\$23,405,440	\$23,738,200	\$25,905,580
Transit Services	\$117,381,240	\$113,946,320	\$108,638,530	\$107,393,830
DOT Total	\$196,258,250	\$189,172,970	\$173,196,350	\$174,666,870
Total MCG Operating Budget	\$1,638,516,130	\$1,630,276,390	\$1,524,392,970	\$1,596,984,520
DOT Total as Percent of Total MCG Operating	12%	12%	11%	11%

DOT General Fund	366.0	346.0	303.2	258.1
Parking District	50.1	50.9	45.8	48.0
Transit Services	871.4	854.7	802.6	830.3
DOT Total	1,287.5	1,251.6	1,151.6	1,136.4
MCG Total Workyears	10,033.1	9,749.4	8,960.5	9,035.5
DOT Total as Percent of Total MCG Operating	13%	13%	13%	13%

This historical budget comparison compares DOT to the Montgomery County Government Budget, not including Public Schools or Parks



DOT Headline Measures and Indicator Map

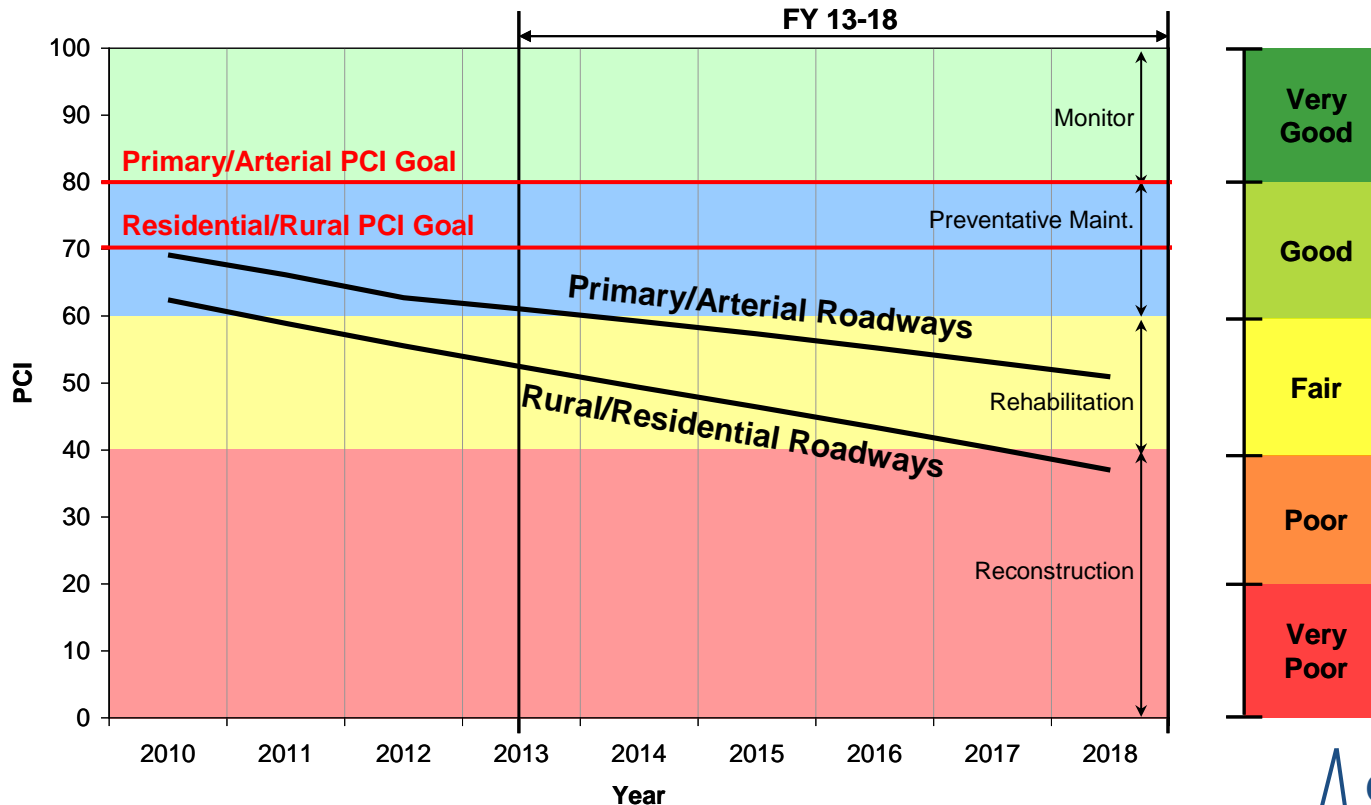
DOT Division	Headline Measure	Indicator		
Highway Services	<ul style="list-style-type: none"> ▪Primary/Arterial Road Quality ▪Rural/Residential Road Quality 	Mean Travel Time to Work	Vehicles Miles Traveled	Traffic Fatalities
Traffic Engineering and Operations	<ul style="list-style-type: none"> ▪Traffic Studies Pending ▪Average Days to Complete Study 			
Transportation Engineering	<ul style="list-style-type: none"> ▪Project Completion within 3 Months of Plan ▪Cost Estimate Accuracy within 10% 			
Transit Services	<ul style="list-style-type: none"> ▪Passengers Transported per Capita ▪Complaints Per 100,000 Riders ▪Scheduled Runs Missed per 1,000 Runs ▪Accidents per 100,000 Miles 			Transit Use
Parking Management	<ul style="list-style-type: none"> ▪PLD Expenses as Percentage of Revenue ▪ Customer Satisfaction Rate 			



Explanation of DOT Road Quality Rating System

- The department has engaged in a countywide Pavement Management System whereby all pavements are inspected and rated according to a prescribed formula.
- The Pavement Management System assigns a Pavement Condition Index (PCI) value to the entire network, Primary and Residential sub-networks, and at road segment levels.

Average PCI Based on FY13-18 CIP Funding Trend



Explanation of DOT Road Quality Rating System

Tier One: Keep Good Roads In Good Condition

- Twelve-percent (\pm) of the annual resurfacing budget within the Operating Budget is earmarked to preserve good roads. In an effort to not allow roads rated as “Good Condition” to slip to fair condition (or worse), crack seals and Slurry Seals are used to preclude moisture and extend service life. Currently, 7.5 % percent of Pavement Management System pavement preservation goals annual requirement is being met.

Tier Two: Restore Structural Capacity Of Roads Rated As Fair And Poor

- Resurface, using Hot Mix Asphalt, all roads classified in the network analysis as Fair and Poor condition. Full depth patching and resurfacing using hot mix asphalt restores the structural capacity and provides a 12-15 year lifespan. Typically, full depth patching, followed by profile milling and overlays varying in depth from one-inch to two-inches are provided.

Tier Three: Rehabilitate Roads That Have Reached The End Of Their Service Life

- This element of the program includes full-depth ‘bottom up’ reconstruction. Alternatively, based on a detailed analysis and field testing, this approach may include extensive full-depth patching (>35%), deep milling, and new base and wearing courses. Rehabilitation provides for a new pavement expected to last 12-15 years.

Tier Four: Permanent Patching: Rural/Residential Roadways

- Based upon current funding trends, many roads requiring reconstruction will not be reached for more than 40-years. Most importantly, this program will ensure structural viability of older residential pavements until such time that road rehabilitation occurs.

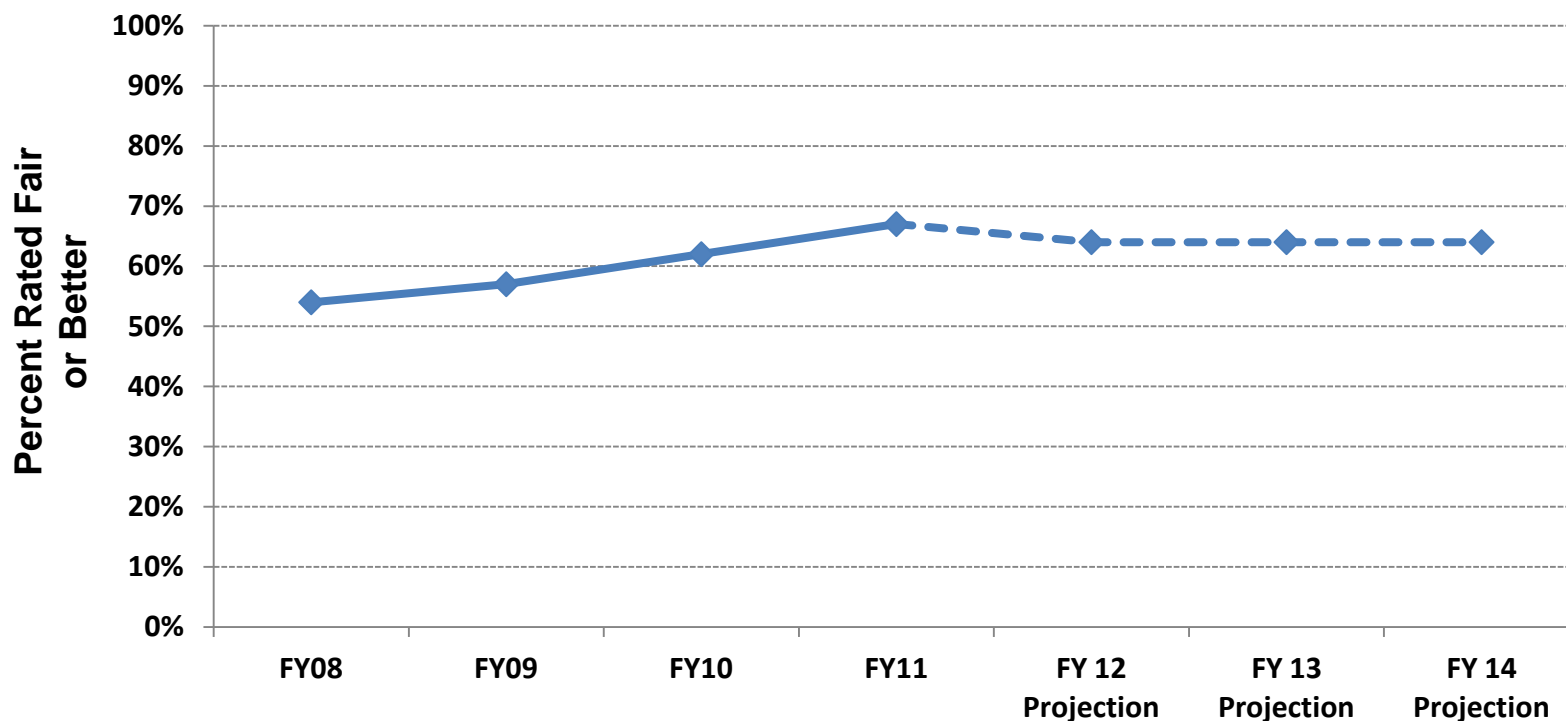


Montgomery County has 5,130 lanes miles of road

Headline Measure: Percent Primary/Arterial Road Quality

Percent Rated Fair or Better (PCI>60)

Highway Services



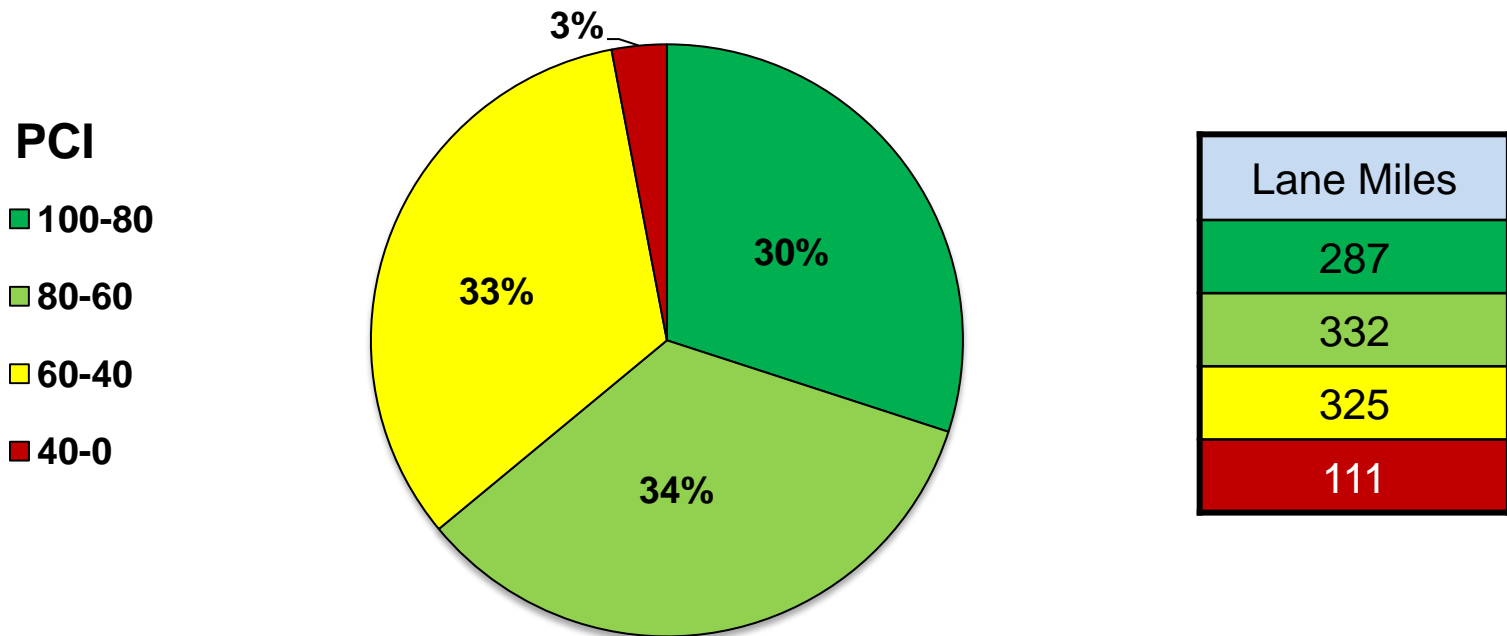
Percent Primary/Arterial
Road Rated Fair or Better

Actual				Projections		
FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
54%	57%	62%	67%	64%	64%	64%



Supporting Data: Primary/Arterial Road 2010 PCI Ratings

- The Pavement Condition Index (PCI) of the Primary/Arterial sub-network in FY12 is 63
- A PCI of less than 60 is undesirable
- A total of 966 lane miles of Primary/Arterial Road exist within the 2010 inventory



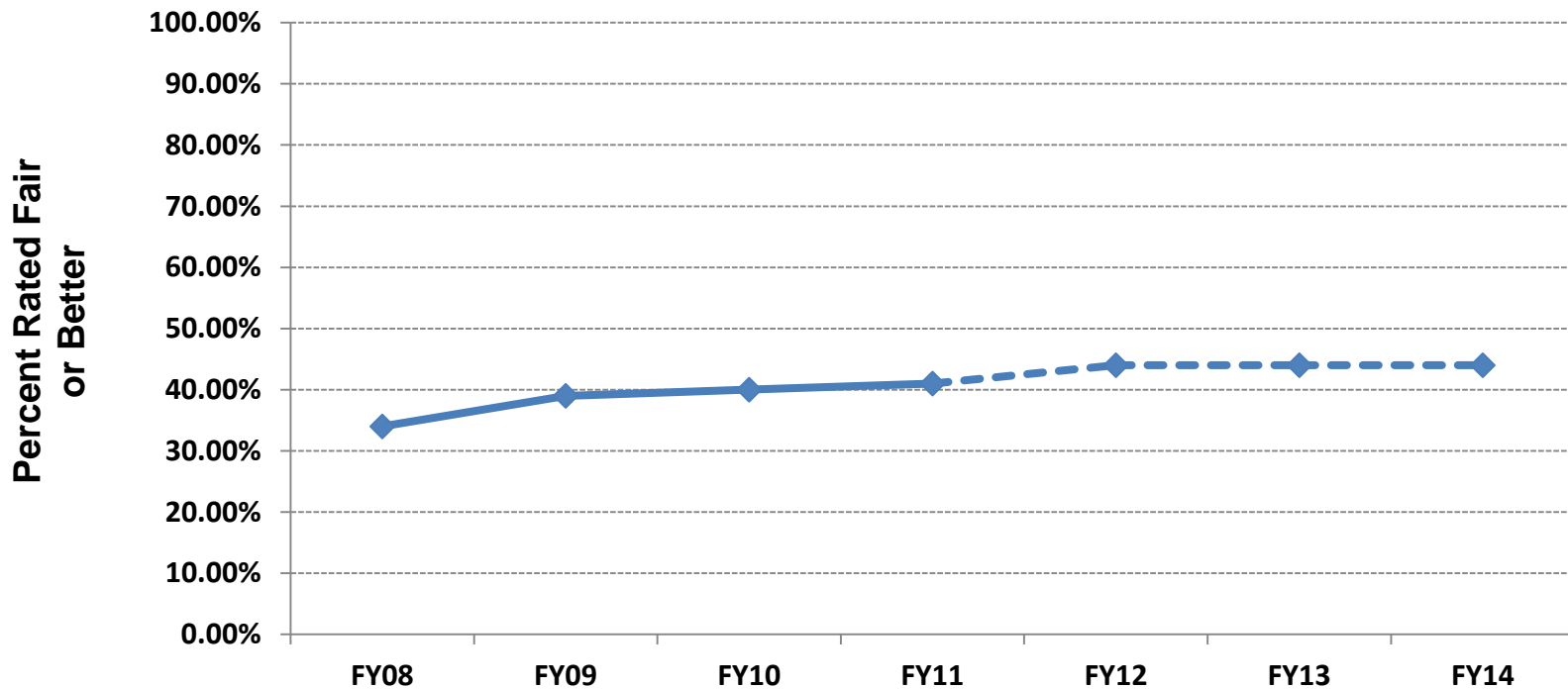
64-percent of Primary/Arterial Roads are rated as Fair or better at an average PCI value of greater than 60



Headline Measure: Rural/Residential Road Quality

Percent Rated Fair or Better (PCI>60)

Highway Services



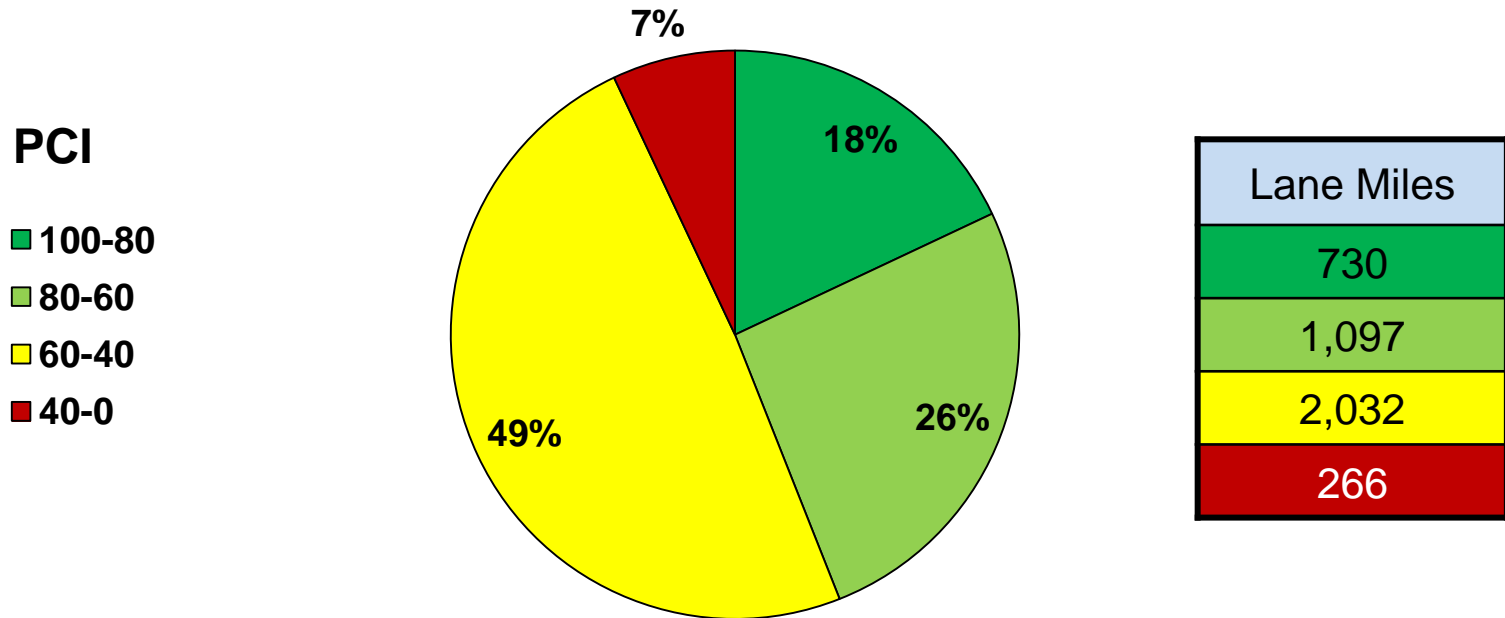
Percent Rural/Residential Road Rated Fair or Better

Actual				Projections		
FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
34%	39%	40%	41%	44%	44%	44%



Supporting Data: Rural/Residential Road 2010 PCI Ratings

- The Pavement Condition Index (PCI) of the Residential/Rural sub-network is FY 12 is 56
- A PCI of less than 60 is undesirable.
- A total of 4,143 lane miles of Residential/Rural Road exist within the 2010 inventory.



44-percent of Residential Roads are rated as fair or better with an average PCI of greater than 60



Highway Services: Performance Explanation

▪ Departmental Explanation for FY11 Performance:

- The 2010 survey data indicates that 64% of Primary/Arterial Roads are rated at a PCI level of 60 or better
- The 2010 survey data indicates that 44% of Residential/Rural Roads are rated at a PCI level of 60 or better
- A PCI of less than 60 is undesirable
- Funding has allowed for an increase in the number of primary roads that fall into the acceptable level

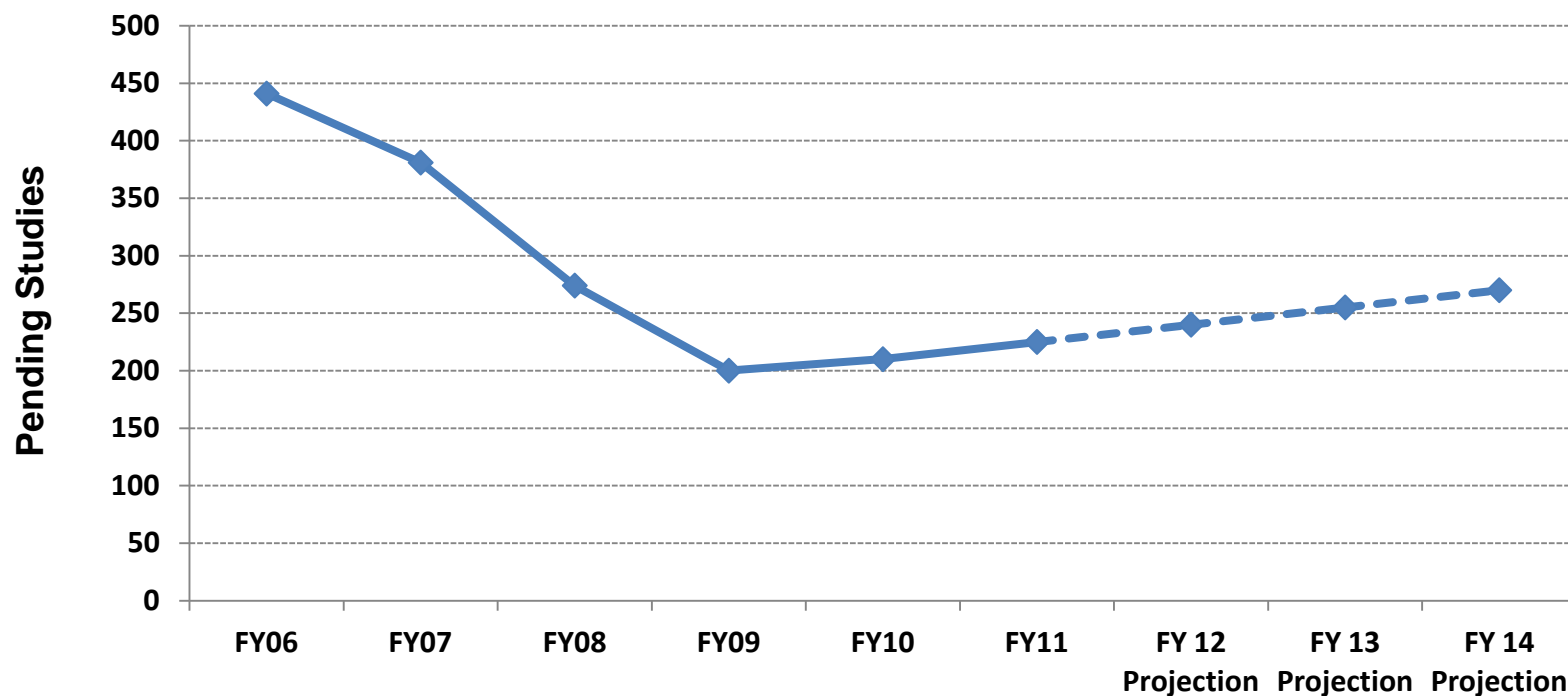
▪ Departmental Explanation for FY12-FY14 Projections:

- Assumes flat performance in future years
- Actual performance will depend on the funding level



Headline Measure: Traffic Studies Pending at End of Year

Traffic Engineering and Operations



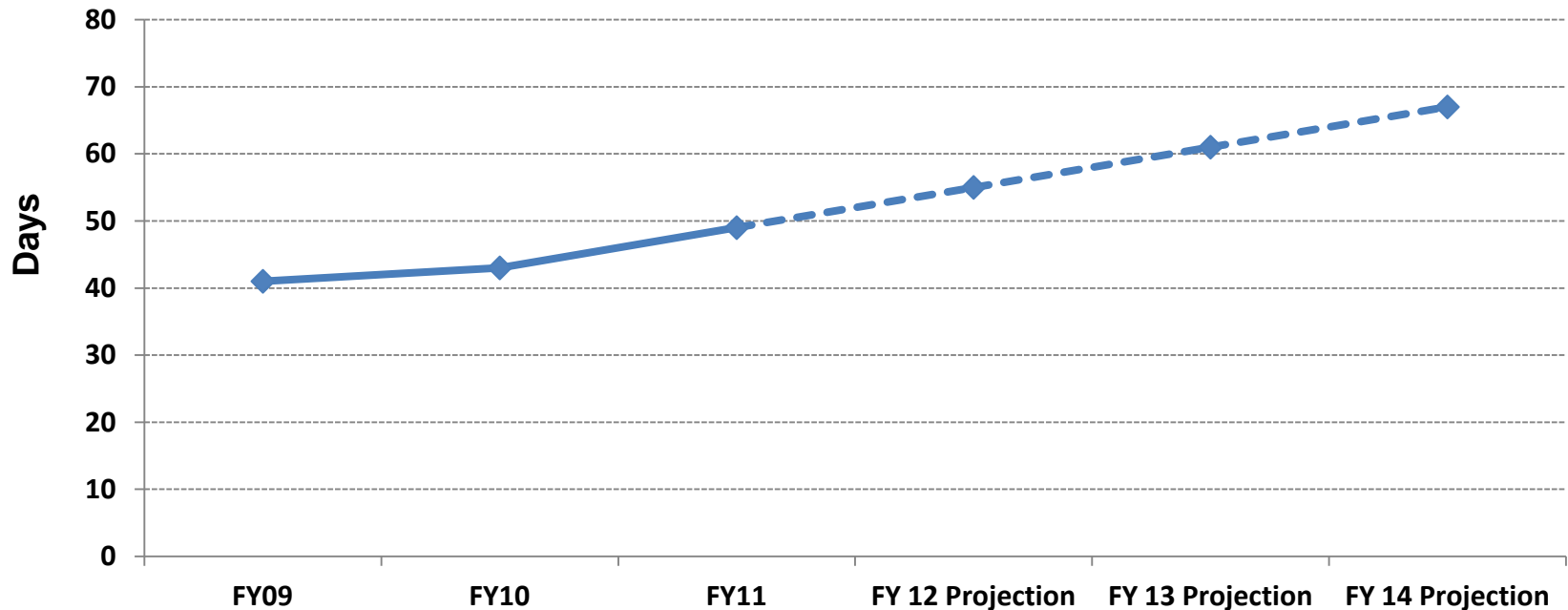
Traffic Studies Pending

Actual						Projections		
FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
441	381	274	200	210	225	240	255	270



Headline Measure: Average Number of Days to Complete Traffic Study

Traffic Engineering and Operations



Average Days to Complete Traffic Study

Actual			Projections		
FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
41	43	49	55	61	67



Traffic Engineering and Operations Supporting Data

Traffic Studies Conducted Annually

FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
409	451	390	265	207	225

- Traffic studies are categorized by type (e.g., speed humps, stop signs, crosswalks, pedestrian safety, etc) and complexity (simple, moderate and complex).
- Within those types and complexity, studies are generally processed by the order received unless DOT is directed to prioritize certain locations.
- Timeframes vary based on complexity of the issue involved. For simple studies, the target is 30 days. For moderately complex studies, the target is 60-90 days. For very complex studies, the target is 120 days. Studies that involve extensive public processes, such as speed humps and access restrictions, do not have specific targets.



Traffic Engineering and Operations: Performance Explanation

- **Departmental Explanation for FY11 Performance:**

- Contractual funds used to conduct traffic studies was eliminated in FY 11 budget resulting in increased time to complete studies and therefore increase the backlog of studies

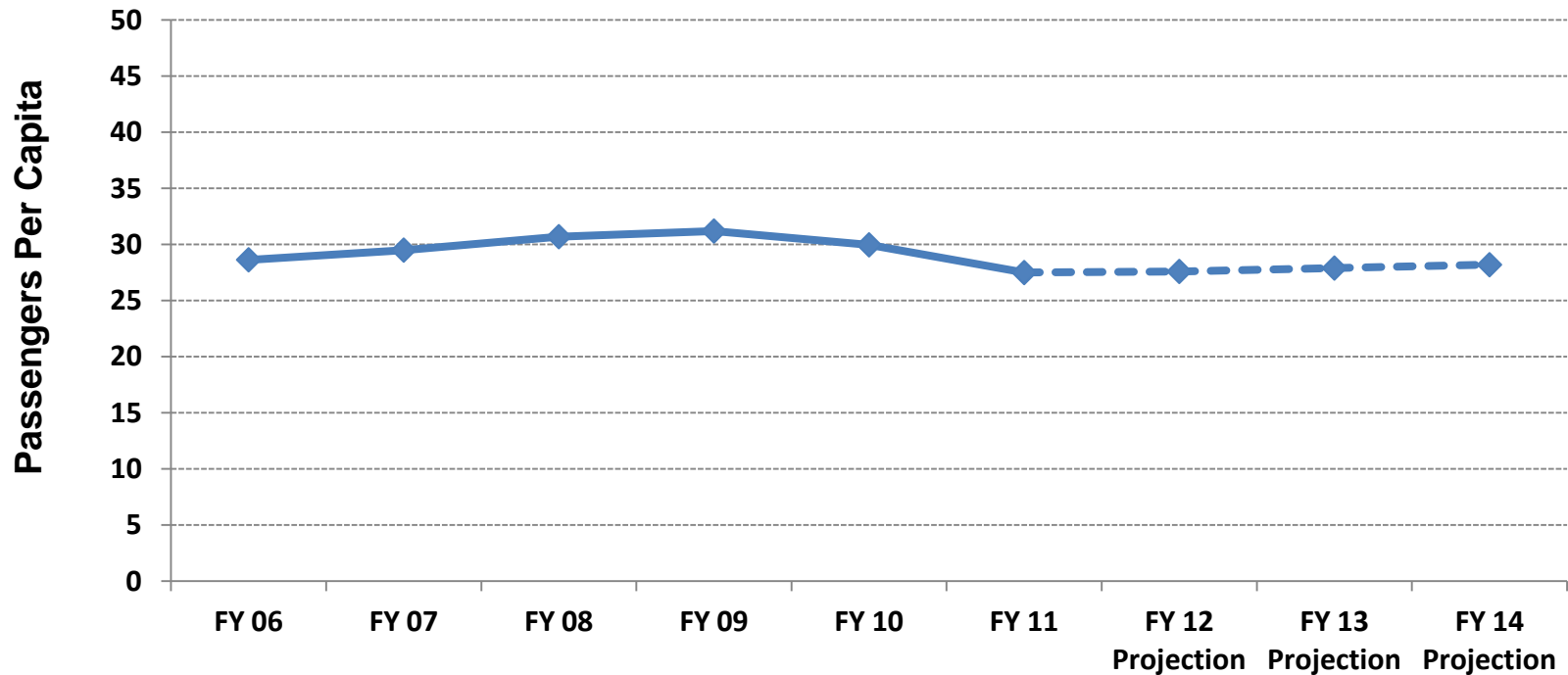
- **Departmental Explanation for FY12-FY14 Projections:**

- Position abolished in FY 12 budget, along with contractual funds eliminated in FY 11 budget, will increase the time to complete traffic studies and therefore increase the backlog of studies



Headline Measure: Passengers per Capita

Transit Services



Passengers Per Capita

Actual						Projections		
FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
28.6	29.5	30.7	31.2	30.0	27.5	27.6	27.9	28.2



Headline Measure: Passengers per Capita

- **Departmental Explanation for FY11 Performance:**

- Ridership has decreased as a result of service reductions in both frequency and routes
- As unemployment increases the number of passengers utilizing Ride On for work decreases
- Cost of transit trips increased at the beginning of FY11 – 15% for cash fare users

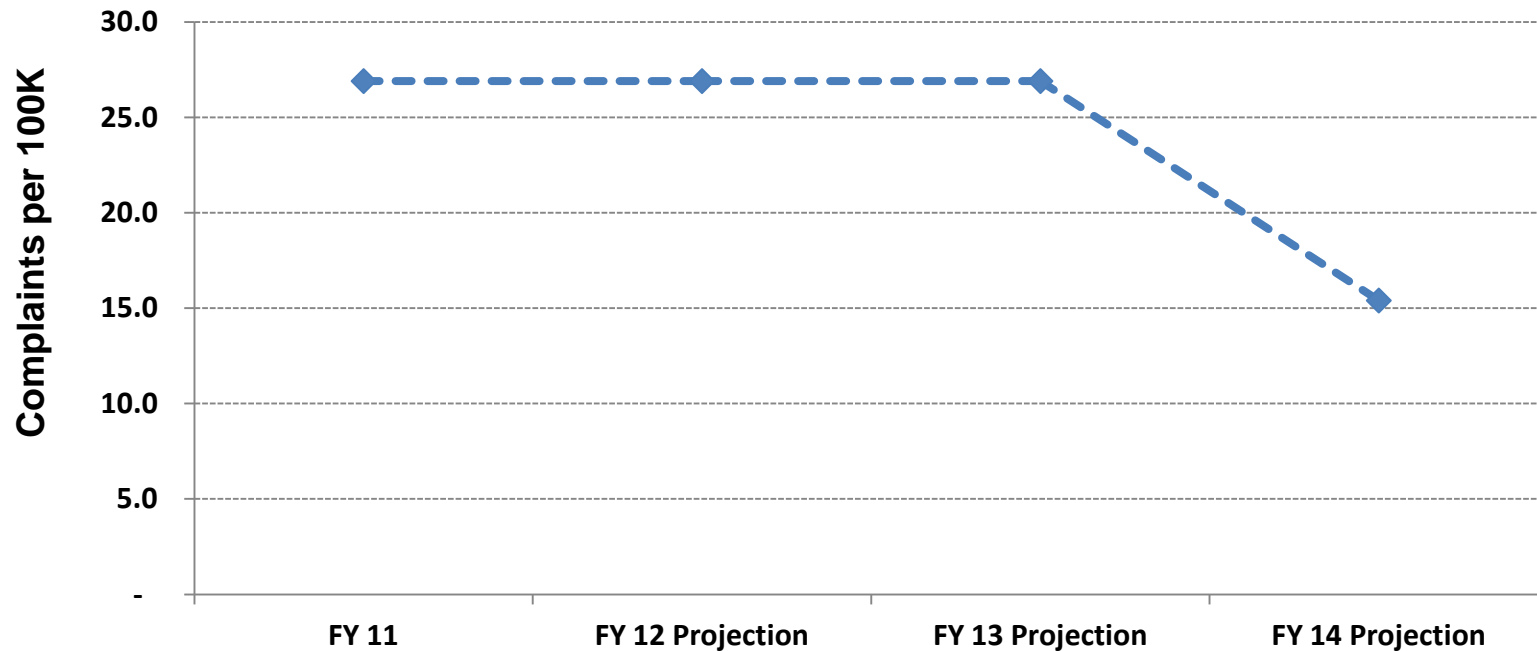
- **Departmental Explanation for FY12-FY14 Projections:**

- Department is not assuming any service reductions or changes
- Department is assuming problems with lack of buses and staffing remains fixed
- Department is assuming a stabilization or decrease of the unemployment in our county



Headline Measure: Complaints per 100,000 Riders

Transit Services



Complaints per 100,000 Riders

	Actual				Projections			
	FY 11	FY 12	FY 13	FY 14	FY 11	FY 12	FY 13	FY 14
	26.9	26.9	26.9	15.4				



Headline Measure: Complaints per 100,000 Riders

■ Departmental Explanation for FY11 Performance:

- Department experienced high levels of missed trips due to small bus reliability issues which resulted in complaints
- Department also experienced a huge turnover of bus operators resulting in a large number of missed trips because of no operator availability which caused complaints.

■ Departmental Explanation for FY12-FY14 Projections:

- Complaints should decrease with the arrival of new buses in FY14 and FY15 for small bus service
- Department is aggressively hiring new bus operators to guarantee staff is available to drive.

Transit Complaints by Type

	Driver Complaints	Service Complaints	Other Complaints
FY10 *	538	1045	86
FY11	2147	4833	209
FY12 *	1192	1947	49

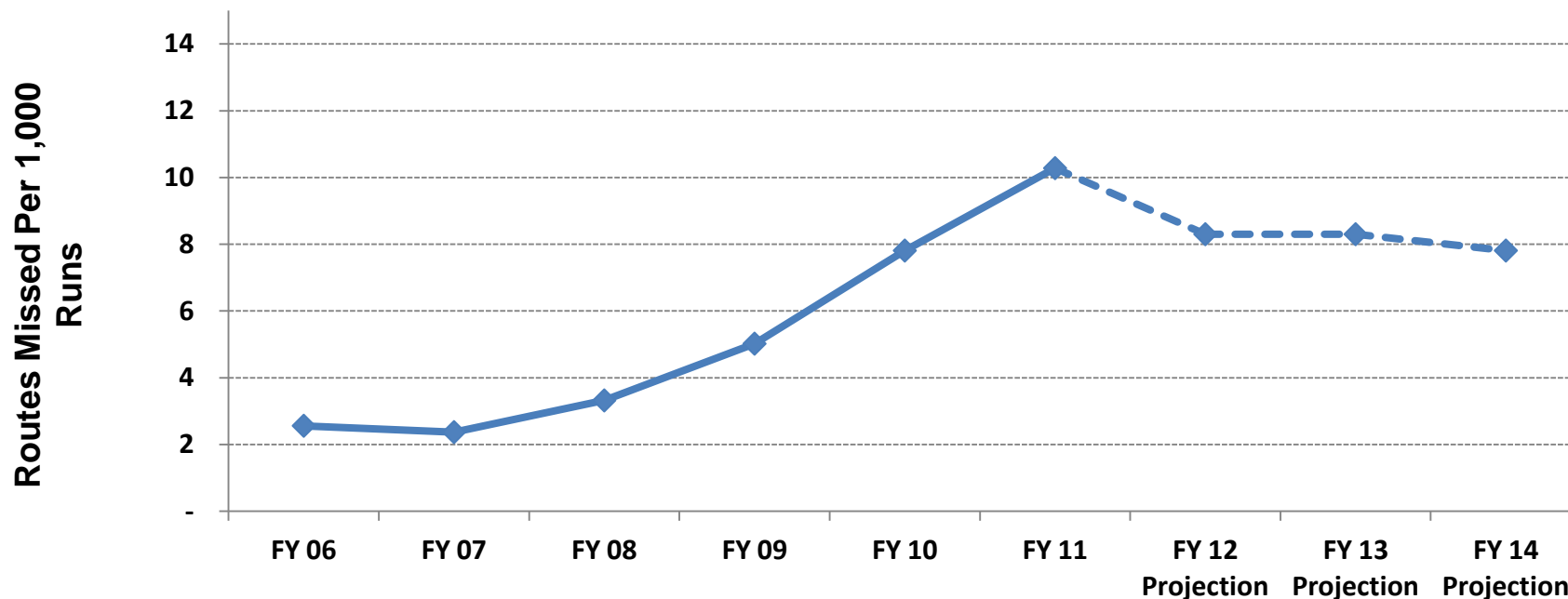
* = Partial year data using MC311 information.

-Other complaints refers to mechanical, routes and scheduling and injury



Headline Measure: Scheduled Trips Missed per 1,000 Trips

Transit Services



Scheduled Runs Missed
per 1,000 Runs

Actual						Projections		
FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
2.56	2.37	3.32	5.02	7.81	10.28	8.30	8.30	7.81



Headline Measure: Scheduled Trips Missed per 1,000 Trips

- **Departmental Explanation for FY11 Performance:**

- Small diesel bus fleet had ongoing service issues-thus a problem with bus availability
- Small bus fleet is almost 14% of fleet and affects service all over the county (4,494 trips missed)
- Shortfall of bus operators to staff bus service

- **Departmental Explanation for FY12-FY14 Projections:**

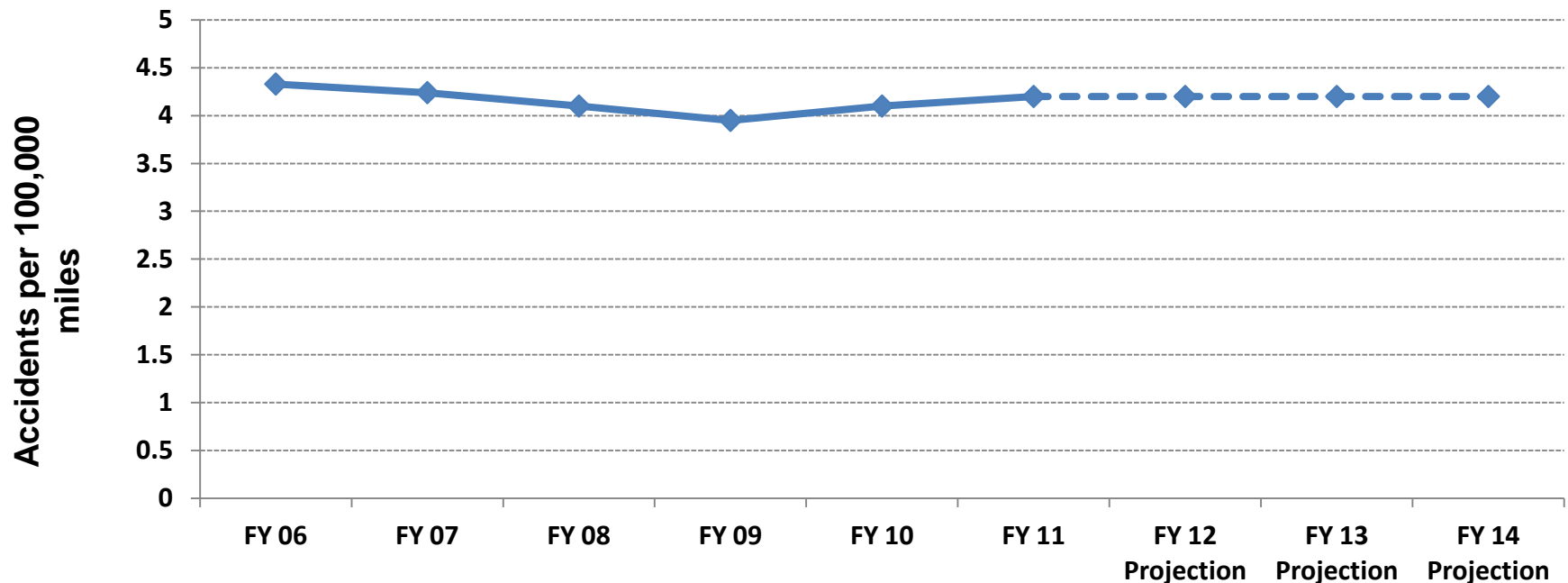
- Procured small used buses to supplement and replace small diesel buses
- Increased spare ratio from 20% to 34% to guarantee service delivery
- Aggressive and continuous hiring of bus operators

Missed trips can occur as a result of lack of drivers, lack of buses (equipment), accidents, weather, etc. They are tracked by run, date and time.



Headline Measure: Accidents per 100,000 Miles

Transit Services



Accidents per 100,000 Miles

Actual						Projections		
FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
4.3	4.2	4.1	4.0	4.1	4.2	4.2	4.2	4.2



Headline Measure: Accidents per 100,000 Miles

- **Departmental Explanation for FY11 Performance:**

- Large number of new bus operators hires
- New hires accounted for 13% of workforce
- Within the industry the higher the number of new bus operators the higher the rate of accidents

- **Departmental Explanation for FY12-FY14 Projections:**

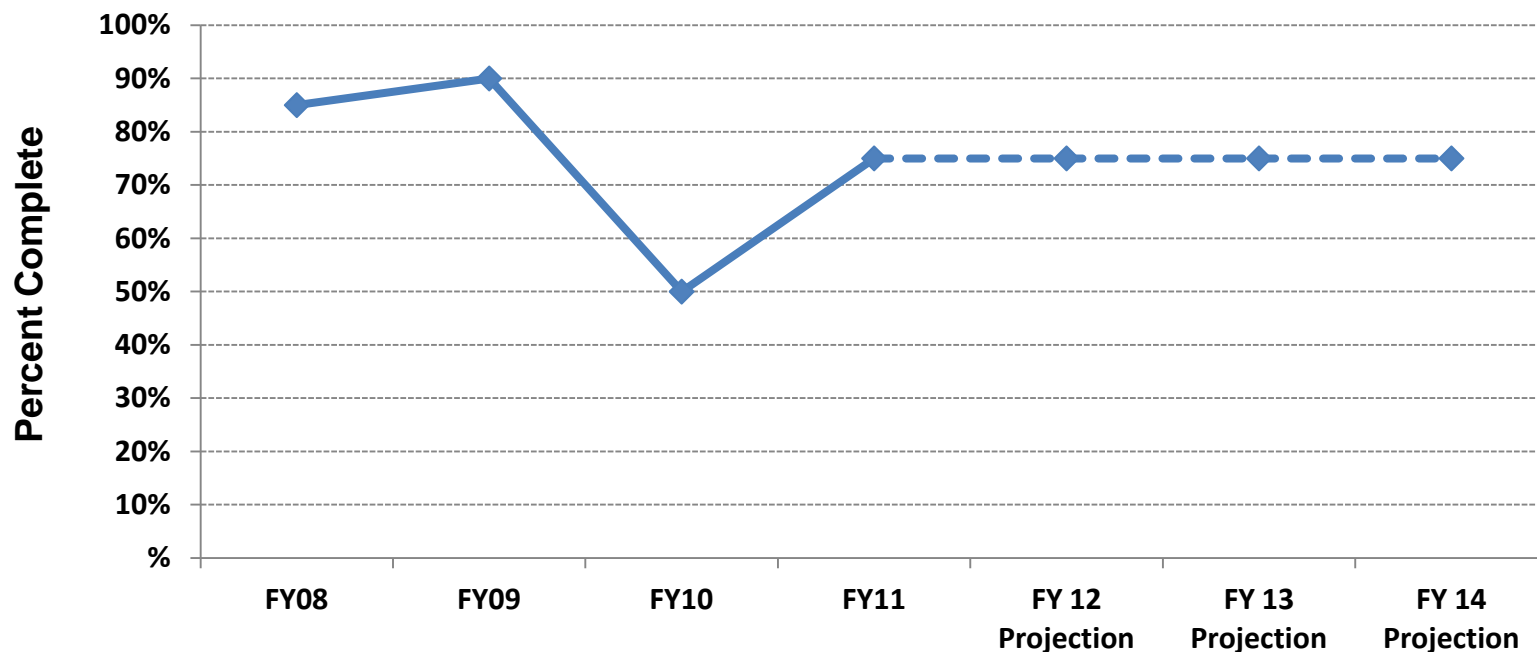
- Department is assuming a continuation of aggressive hiring to replace turnover in workforce
- We are not anticipating a change in the rate of accidents
- Department is implementing Monthly Emphasis on Safety Program (MEP) which is safety tips to operators to maintain a “safety first” performance

Over the past few years, the rate of preventable Transit accidents has been 58%



Headline Measure: Projects Completed Within 3 Months

Transportation Engineering



Projects Completed Within 3 Months

Actual				Projections		
FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
85%	90%	50%	75%	75%	75%	75%



Headline Measure: Projects Completed Within 3 Months

Performance Explanation

▪ Departmental Explanation for FY11 Performance:

- Four projects were scheduled for completion in FY11. Three were completed within 3 months of the projected schedule
 - Cedar Lane Bridge was completed over three weeks ahead of schedule with the contractor earning approximately \$180K in incentives.
 - Clarksburg Road Bridge was completed roughly three months ahead of schedule.
 - Father Hurley Boulevard was completed within three months of the projected schedule.
 - Woodfield Road Extended was behind schedule primarily due to utility relocations along MD27 by Allegheny Power and Verizon.

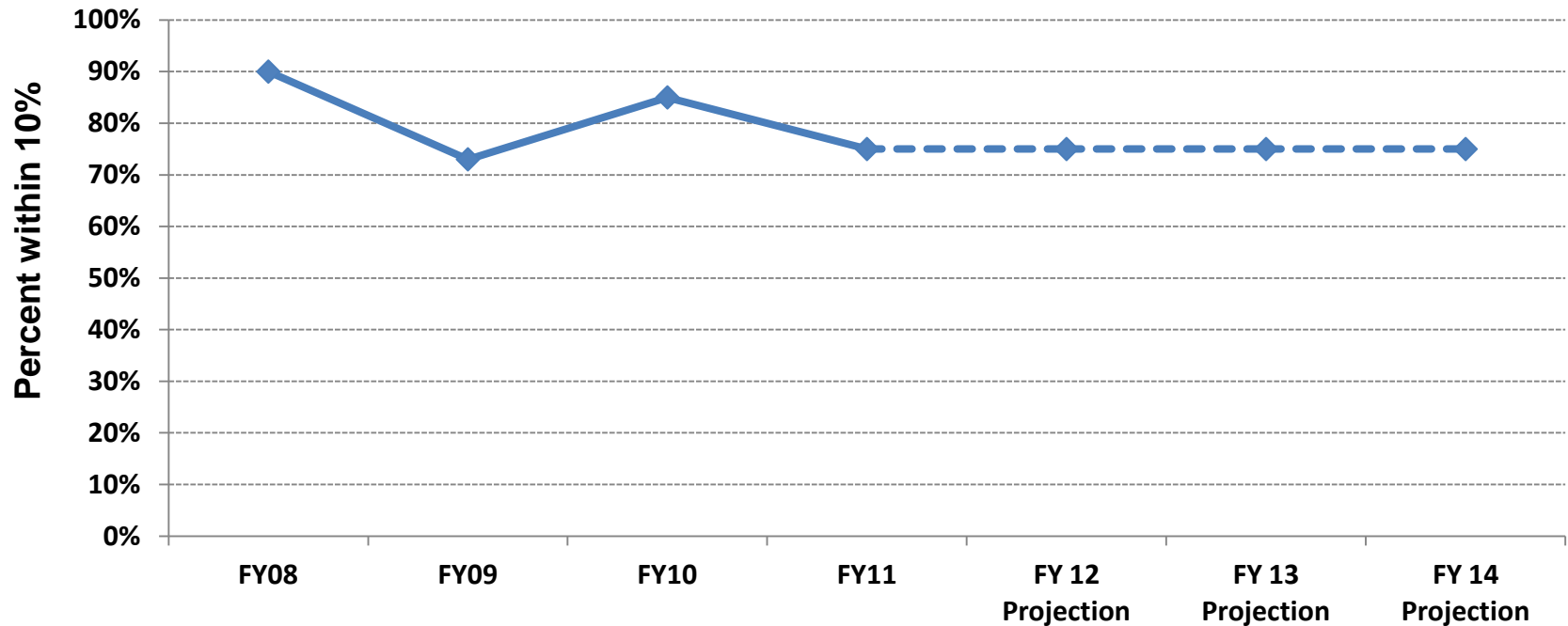
▪ Departmental Explanation for FY12-FY14 Projections:

- Projections based on historical performance and the realistic expectation that issues beyond our control, such as permitting delays or utility relocation delays will impact a few of our projects.



Headline Measure: Transportation Cost Estimates within 10% of Actual Costs

Transportation Engineering



Cost Estimates within 10% of Actual Costs

Actual					Projections	
FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
90%	73%	85%	75%	75%	75%	75%



Headline Measure: Transportation Cost Estimates within 10% Performance Explanation

▪ Departmental Explanation for FY11 Performance:

- FY 11 is consistent with our goal of achieving 75% of the projects within 10% of the project budget
- Our techniques of using the latest unit price bid values has resulted in consistency in predicting project costs
- There are always cost escalation variables and unforeseen circumstances in projects that make it virtually impossible to achieve 100% accuracy

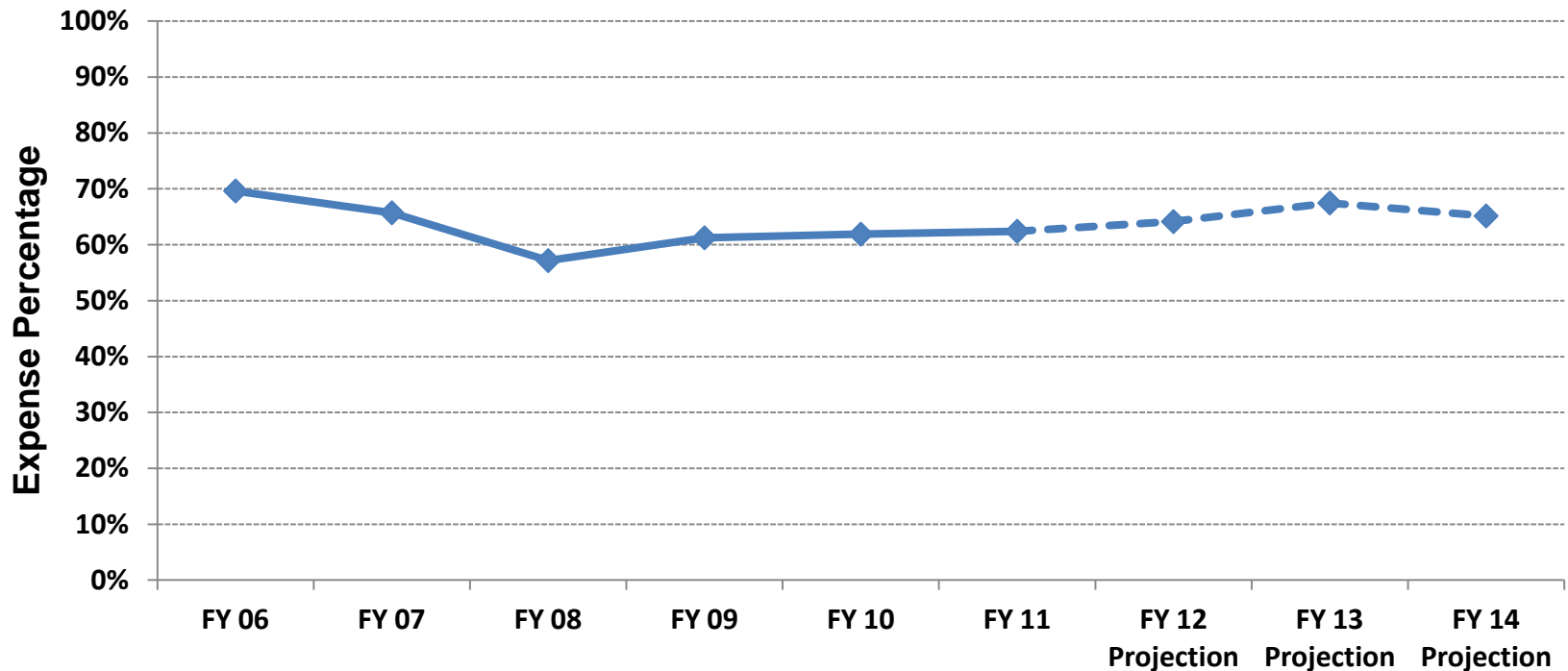
▪ Departmental Explanation for FY12-FY14 Projections:

- Future years assume a similar rate as past performance, approximately 75% coming in at budget



Headline Measure: Expenses as Percent of Revenues

Parking Services



PLD Expenses as % of Revenues

Actual						Projections		
FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
70%	66%	57%	61%	62%	62%	64%	67%	65%



Parking Services Supporting Data

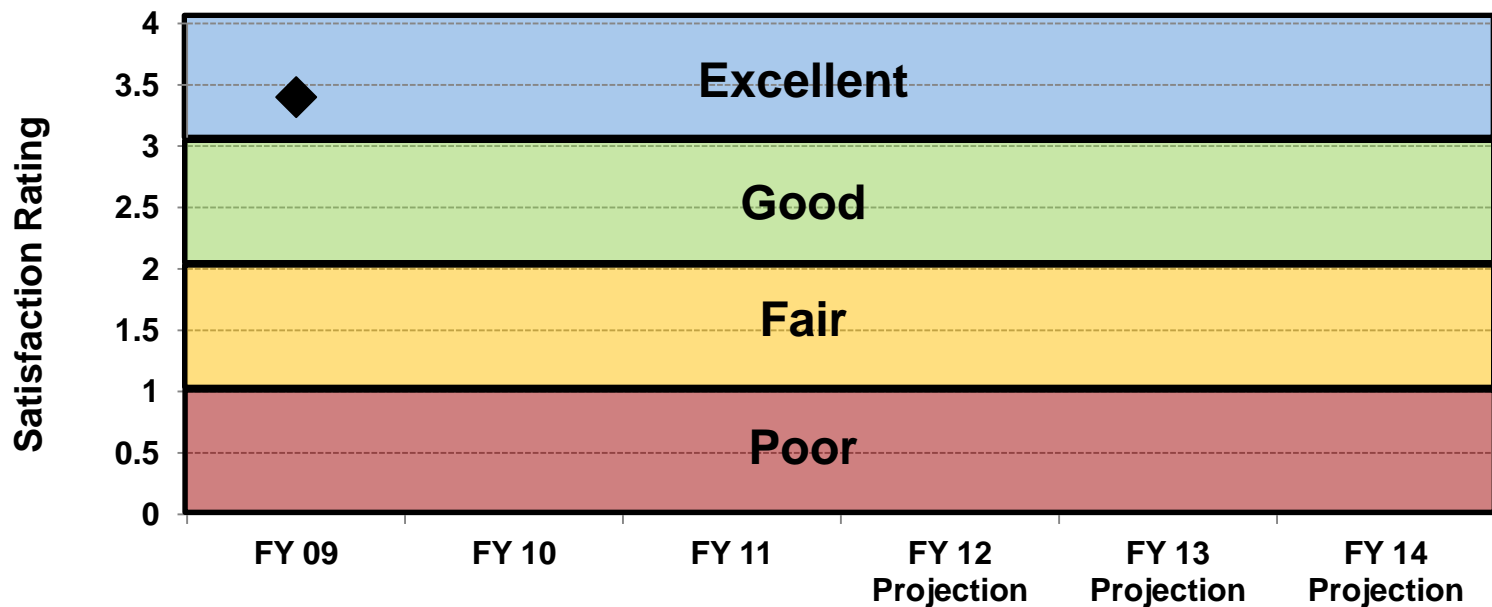
<u>FY</u>	<u>Exp/Rev%</u>	<u>Expenses</u>	<u>Revenues</u>	<u>Explanation</u>
FY06	69.62%	22,276,582	31,999,339	Actual
FY07	65.71%	24,126,475	36,715,129	Actual
FY08	57.16%	22,497,166	39,355,146	Actual
FY09	61.24%	24,326,648	39,721,840	Actual
FY10	61.89%	23,738,133	38,354,207	Actual
FY11	62.40%	23,995,338	38,452,264	Estimate
FY12	64.14%	25,905,580	40,389,370	Budget Projection
FY13	67.47%	27,980,270	41,472,270	Based on Maintenance MARC and recommended rate increases
FY14	65.15%	27,980,270	42,946,060	Based on FY13 and previously recommended rate increases

DOT cannot provide final FY11 data until all County finances are closed in the financial system



Headline Measure: Parking Customer Satisfaction

Parking Services



Customer Satisfaction
Rate

Actual			Projections		
FY 09	FY 10	FY 11	FY 12	FY 13	FY 14
3.4	NA	TBD	NA	TBD	NA

**FY11 Actual and future projections will be calculated once
FY11 survey collection and analysis is complete**



Parking Services: Performance Explanation

- **Departmental Explanation for FY11 Performance:**

- There were no revenue rate increases in FY 11 and therefore revenue was essentially flat
- Expenditures increased by about 1%
- The combination of flat revenues and essentially flat expenditures means no significant change in the ratio of expenditures related to revenue collected

- **Departmental Explanation for FY12-FY14 Projections:**

- An increase in the ratio of expenditures to revenues is anticipated in FY 12 and FY 13 due to the anticipated debt service payments on the construction of Garage 31



Overview of DOT Service Level Agreement (SLA) Findings

- CountyStat identified instances where the difference between average networkdays and SLA agreement is more or less than 5 days
- Only Solution Areas with at least 10 instances in the past 6 months are included
- The three Solution Areas with the longest time over SLA all pertain to trees
- Some current SLAs contain coding errors such as “Dangerous/knocked over stop sign”, which currently has an SLA of 520 days that should be 5 days

Disparity between SLA timeframe and networkdays indicates either a performance issue or the need to revise the existing SLA to more accurately capture the business process

Departmental Service Request Fulfillments By User Group

Opened	Highway	Parking	Traffic	Transit	Total
Jun	1064	15	222	277	1578
Jul	983	11	131	212	1337
Aug	1477	7	182	286	1952
Sep	1257	7	237	301	1802
Oct	838	9	225	291	1363
Nov	568	8	186	288	1050
Total	6187	57	1183	1655	9082



Comparison of Net-workdays to Close Versus Service Level Agreement (5 Days Over or More)

Solution Area	SLA	Average Networkdays	Average Difference b/w Networkdays and SLA	# of SRs
Tree Limb Hanging or Broken	5 days	33 days	+ 28 days	96
Tree Ready to Fall	1 day	24 days	+ 23 days	43
Dead County Tree	5 days	21 days	+ 16 days	201
Ride On trash at bus stop	2 days	13 days	+ 11 days	32
Erosion Repair	5 days	15 days	+ 10 days	48
Ride On bus stop or bus shelter	5 days	14 days	+ 9 days	97
Ride On request for new bus stops/shelter/condition	10 days	19 days	+ 9 days	22
Street drainage repair	5 days	14 days	+ 9 days	147
Status of storm drain repair	3 days	11 days	+ 8 days	15
Curb and gutter repair	5 days	12 days	+ 7 days	153
Tree Crew Removed Tree but Stem or Trunk Remains	5 days	12 days	+ 7 days	12
Road Repair	5 days	11 days	+ 6 days	466
County tree fell on private property (car or house)	2 days	8 days	+ 6 days	29
Mowing	2 days	8 days	+ 6 days	149

* Net-workdays is an Excel function that calculates the number of work days between two calendar dates. This function does not take into account holidays. Only solution areas with a difference of 5 or more days and 10 or more occurrences are included.



Comparison of Net-workdays to Close Versus Service Level Agreement (5 Days Under or More)

Solution Area	SLA	Average Networkdays	Average Difference b/w Networkdays and SLA	# of SRs
Ride On refund for money lost in bus fare box	20 days	4 days	-16 days	67
Sight distance	42 days	3 days	-39 days	71
Damaged or missing street sign in need of replacement	42 days	1 day	-41 days	222
Request to re-paint road striping or lane markings	42 days	1 day	-41 days	71
Street name sign missing	42 days	1 day	-41 days	59
Request to Inspect or Prune County tree	90 days	25 days	-65 days	314
Grass Damage from Snow Event	120 days	10 days	-110 days	17
Grass Damage from Non-Snow Events	120 days	7 days	-113 days	13
Tree Selection to Replant in the ROW	180 days	2 days	-178 days	13
Remove Tree Stump Timeframe	260 days	21 days	-239 days	26
Length of Time to Remove Tree	260 days	16 days	-244 days	11
Replace a tree	260 days	5 days	-255 days	46
Timeframe for Dead Tree Removal (reported)	365 days	14 days	-351 days	11
Dangerous/knocked over stop sign	520 days	1 day	-519 days	42

* Net-workdays is an Excel function that calculates the number of work days between two calendar dates. This function does not take into account holidays. Only solution areas with a difference of 5 or more days and 10 or more occurrences are included.



Linking Performance Measures to Budgetary Programs

- CountyStat and the Office of Management and Budget are coordinating efforts with departments to outline the linkages between existing budgetary program and headline performance measures
- This exercise is the first in a series that will create a closer linkage between budgeting and performance management

Budget Book Programs

PROGRAM DESCRIPTIONS

Aquatics
The Aquatics program provides recreational, fitness, instructional, competitive, therapeutic, and rehabilitation water activities that serve all residents. The Department operates seven regional outdoor pools, as well as five indoor aquatic facilities, and a neighborhood open pool. The outdoor pools serve the public 17 hours each day, 7 days a week, approximately 340 days a year. The indoor pools and the open pool operate from November 1st through Labor Day weekend.

FY12 Approved Changes	Expenditures	WT%
FY12 Approved	6,889,680	122.8
Reduction: Comprehensive Indoor State Center closed until 11/1/12 for renovation (Phase September)	180,070	-3.7
Performance adjustments, including reduction of employee benefits, employee benefit changes, changes due to staff transfers, organizational, and other budget changes affecting expenditures and salaries	128,751	2.8
FY12 Approved	6,680,640	122.3

Countywide Programs
Countywide programs provide a variety of activities for youth and adults. The programs include Youth and Adult Sports, Camps, Classes, Therapeutic Recreation, Teen Youth Services, Trips and Tours, and support to Special Events.

The Sports program educates and delivers extensive programs in adult sports and select youth leagues throughout the County. The adults, competitive leagues and tournaments are offered seasonally in soccer, flag football, volleyball, basketball, and softball.

The department provides over 30 camps in Montgomery County for children ages 4-13 that are fun, safe, convenient, and affordable. Little People Camps offer an exciting first taste of summer camp; six camps provide opportunities to develop children's creativity; sports camps empower children with sports and sports skills activities. There are also one-of-a-kind camps, including Employment in Science and On-the-Go. Creative Theater gives campers a taste of producing a real musical. Extended hours provide parents with

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Linkage of Budget Programs to Performance

Headline Measure

Budget Program

Headline Performance Measures

Item	Measure Text	Target	Current Value	Previous Value	Year Goal	Performance
101	Total number of repeat registrants in recreation programming	26,000	18,873	47,284	FY18	↓
102	Percent of participants who reported an unscheduled response and being asked to be a volunteer or a survey results	26,000	81.0%	87%	FY18	↔
103	Percent of participants who reported a response to a survey results	26,000	1.5%	1.0%	FY18	↑
104	Percent of County residents reported through the Department of Recreation by age group	26,000	8.8%	9.7%	FY18	↔
105	Percent of youth registered in Positive Youth Development Programs who report program participation benefits	26,000	90%	75%	FY18	↑
106	Percent of County residents registered through the Department of Recreation - under 5 years old	26,000	1%	12.5%	FY18	↔
107	Percent of County residents registered through the Department of Recreation - 5 to 14 years old	26,000	21%	23%	FY18	↓
108	Percent of County residents registered through the Department of Recreation - 15 to 24 years old	26,000	1.4%	1.2%	FY18	↔
109	Percent of County residents registered through the Department of Recreation - 25 to 34 years old	26,000	4.3%	4.7%	FY18	↔
110	Percent of County residents registered through the Department of Recreation - 35 to 44 years old	26,000	85.0%	91.0%	FY18	↓



DOT Linkage Between Headline Measures and Budget Programs

Headline Measures

Primary/Arterial
Road Quality

Rural/Residential
Road Quality

Traffic Studies
Pending

Average Days
to Complete
Study

Project
Completion
within 3
Months of Plan

Cost Estimate
Accuracy within
10%

Budget Programs

Automation

Bridge Maintenance

Bridge Maintenance

Bridge Maintenance

Bridge Maintenance

Resurfacing

Resurfacing

Trans. Engineering

Trans. Engineering

Road Maintenance

Road Maintenance

Community Outreach

Administration

Pedestrian Safety

Construction

Construction

Planning and Design

Traffic Sign & Marking

TMC

Traffic Signals Mgmt

Traffic Planning

Property Acquisition

Property Acquisition

Policy

Mgmt. Services



DOT Linkage Between Headline Measures and Budget Programs

Headline Measures

Passengers
Transported per
Capita

Complaints Per
100,000 Riders

Scheduled
Runs Missed
per 1,000 Runs

Accidents per
100,000 Miles

PLD Expenses
as Percentage
of Revenue

Parking
Customer
Satisfaction Rate

Budget Programs

Automation

Parking Non-Districts

Parking Non-Districts

Administration

Community Outreach

Policy

Resurfacing

Road Maintenance

Ride On

Transit Customer Service

Parking Operations

Parking Facilities

Mgmt. Services

Financial Mgmt.

